

## PBDE Deca-Alternatives Advisory Committee Meeting #1 Notes July 19, 2005

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The first meeting of the PBDE Deca-Alternatives Advisory Committee was held on July 19, 2005 at the Landmark Convention Center in Tacoma, Washington. A copy of the meeting agenda is included in **Attachment 1\***.

The following advisory committee members attended the meeting:

**Mark Johnson**, Washington Retail Association  
**Susan Landry** (for Dave Sanders), Bromine Science and Environmental Forum  
**Mo McBroom**, Washington Environmental Council  
**Grant Nelson**, Association of Washington Businesses  
**MaryAnn O'Hara**, University of Washington Department of Family Medicine  
**Mel Oleson**, Boeing  
**Randy Ray**, Pacific Seafood Processors Association  
**Ivy Sager-Rosenthal**, Toxic-Free Legacy Coalition  
**Gary Smith**, Independent Business Association  
**Dale Swanson**, Panasonic Shikoku  
**Laurie Valeriano**, Washington Toxics Coalition

Ecology and Health staff presenting information during the meeting:

**Anh Berry**, Department of Ecology  
**Cathy Carruthers**, Department of Ecology  
**Mike Gallagher**, Department of Ecology  
**Carol Kraege**, Department of Ecology  
**Denise Laflamme**, Department of Health  
**Greg Sorlie**, Department of Ecology

Representatives from government agencies who attended the meeting:

**Jason Allen**, Department of Health  
**Dennis Bowhay**, Department of Ecology  
**Damon Delistraty**, Department of Ecology  
**Rob Duff**, Department of Health  
**Mike Dunning**, Department of Health  
**Rick Manugian**, Department of Ecology  
**Ted Sturdevant**, Department of Ecology

Additional stakeholders and members of the public who attended the meeting:

Susan Champlain, Boeing  
Earl Tower, Bromine Science and Environmental Forum  
Nancee Wildermuth, Alliance of Automobile Manufacturers

Marc Daudon facilitated the meeting and Marley Shoaf took notes.

### Convene and Introductions

Marc Daudon welcomed the advisory committee members and members of the public to the first meeting of the PBDE Deca-alternatives advisory committee. Advisory committee

members and representatives of government agencies introduced themselves and briefly stated their affiliations and roles in the advisory committee process. Marc introduced Carol Kraege, manager of Ecology's industrial section and recently appointed manager of the PBT Program. Marc explained that the advisory committee last convened on December 1<sup>st</sup>, 2004 as part of the PBDE Chemical Action Plan (CAP) advisory committee and that as a continuation of the CAP process, the Department of Ecology (Ecology) has formed an advisory committee to discuss Deca alternatives. A list of advisory committee members and other contacts was distributed to everyone in the room (Attachment 2\*).

Marc reviewed the meeting agenda and process guidelines and ground rules (Attachment 3\*, Slides 1-3) that will be used throughout the advisory committee meetings. He reminded committee members that Ecology is interested in receiving feedback from committee members and that a consensus among members does not need to be reached. He explained that the advisory committee meetings are a consultative process and that the committee's role is to provide expertise and perspectives for Ecology and the Department of Health (Health) to make final decisions on the PBDE CAP.

## Overview and Background

Mike Gallagher presented an overview of the PBDE CAP process (Attachment 3\*, slides 4-6). He explained that in January 2004 Governor Locke issued an Executive Order for Ecology and Health to develop a PBDE CAP and PBT Rule. The Legislature funded the development of a PBDE CAP and the Interim PBDE CAP was completed in December 2004. Ecology received hundreds of comments on the PBDE CAP during the public comment period and is currently completing a Responsiveness Summary. Mike explained that the Interim PBDE CAP states that a ban on Deca is warranted, but further work is needed (e.g., investigation of the impacts of alternatives to PBDEs and a cost-benefit analysis of a proposed Deca ban). Ecology and Health are currently investigating the environmental and health impacts of Deca alternatives and are conducting a detailed cost-benefit analysis on a proposed Deca ban. Ecology would like to complete the PBDE CAP by December 2005.

Greg Sorlie presented an overview of the purpose and role of the Deca-Alternatives Advisory Committee, a projected meeting schedule and expected outcomes (Attachment 3\*, slides 7-10). Greg Sorlie told the committee that the Deca alternatives advisory committee is starting off where the PBDE CAP advisory committee left off last December and that many of the advisory committee members for the deca-alternatives process are the same as the previous committee. Ted Sturdevant said that Ecology invited previous advisory committee members to participate in the Deca-alternatives advisory committee and that Ecology is open to adding new members to the committee if anyone feels that a particular group has not been included. Greg explained that the goal of the Deca-alternatives committee is to finish the PBDE CAP and that Ecology has been funded to complete the CAP by the end of December 2005. Greg explained that while last year's advisory committee focused on a broad range of PBDE issues, this committee's specific focus on Deca alternatives is more narrow and technical. He said that Ecology is working under a very short timeframe and that two additional committee meetings and a public comment period are scheduled to take place before December, although the exact dates have not been scheduled. Greg also explained that Ecology will have another advisory committee process later this year to focus specifically on PBDE end-of-life issues.

## Comments and Clarifications

- **How can Ecology finalize the PBDE CAP without addressing the end-of-life issues first?** One member said that Ecology should not finalize the CAP before the advisory committee process on end-of-life issues. Ecology explained that they are considering how the end-of-life issues (slated for work in April) will fit into the final PBDE CAP (to be completed in December). Ecology said that the final CAP may have recommendations to further address end-of-life issues.
- **How will Ecology handle confidential business information and ensure that information remains confidential?** Ecology explained that, by law (RCW 43.21A.160), some information can be kept confidential. Specifically the law states

Whenever any records or other information furnished under the authority of this chapter to the director, the department, or any division of the department, relate to the processes of production unique to the owner or operator thereof, or may affect adversely the competitive position of such owner or operator if released to the public or to a competitor, the owner or operator of such processes or production may so certify, and request that such information or records be made available only for the confidential use of the director, the department, or the appropriate division of the department. The director shall give consideration to the request, and if such action would not be detrimental to the public interest and is otherwise within accord with the policies and purposes of this chapter, may grant the same.

Ecology will work with businesses' attorneys on the issue as the need arises. Ecology reminded the committee that any information sent via email is not protected or confidential. One member asked how Ecology will protect information under the alternatives analysis and expressed concern that some information will be kept more confidential than it really should be. Ecology said that they may be able alter the way the information is displayed so that it cannot be traced back to the source. In addition, Ecology will post a more detailed explanation of confidentiality issues and the process for certifying this information after consultation with the Office of the Attorney General.

- **Is there a process to get information to all advisory committee members?** Yes, Ecology will put all handouts on their PBDE website.
- **Will the public comment period be limited to Deca?** Ecology said that they have had a public comment period for the Interim PBDE CAP and that the upcoming public comment period should be focused on Deca alternatives.

## Overview of Deca Alternatives Analysis

Denise Laflamme presented Ecology and Health's work to date on the assessment of alternatives to Deca ([Attachment 3\\* slides 11-32](#)). She explained that the Interim CAP guides Ecology and Health to determine how to ban Deca in a way that does not jeopardize fire safety, does not unnecessarily burden Washington businesses, and does not prompt the use of alternative flame retardants that might be equally or more harmful. Denise said that the Deca alternatives assessment involves collection of market information, cost information, replacement feasibility, efficacy, and toxicity information. She explained that Ecology and Health decided to restrict the alternatives assessment to electronics and upholstery textiles because the products account for the majority of Deca use and because of potential new consumer product safety standards being developed. Denise explained that the alternatives assessment involves contacting other states and organizations, reviewing existing reports, defining the scope of the assessment, developing a template for compiling information on chemical/physical and toxicity information, and contacting companies for information regarding their use of less toxic alternatives.

Denise reviewed the studies and resulting flame retardant reports that Health considered in their assessment and briefly described the parameters that were used to evaluate alternatives in those studies. She explained that previous alternative assessments have used a variety of assessment methods. Denise described the set of questions that Health developed to survey companies about their use of Deca and Deca alternatives. She said that Health developed the survey to provide consistency to the questions that they asked businesses. She reviewed Health's approach and template for collecting toxicity information on Deca alternatives.

Advisory committee members had the following questions and comments on the Deca alternatives analysis:

- **Why can't Ecology and Health reveal the identities of the companies being surveyed?** One member said that proprietary information is not protected for the alternatives assessment. As stated earlier, Ecology can protect certain information and will be publishing a more detailed explanation of what can be kept confidential as well as the process for doing so. Ecology said that once they have information from multiple businesses they may be able to share averages, but at this time they have only contacted a few businesses.
- **Question 9 from Health's survey may not encompass all the costs that will affect the system.** One member said that question 9 on the survey should be expanded beyond production materials and equipment. She said that there may be new processing procedures and recycling costs associated with Deca alternatives and that these additional costs will not be captured with the survey question in its current form. She said that the question will not give an accurate cost-benefit analysis. Another member said that Ecology should also ask companies whether they decided to continue to use an alternative product. Ecology said they will further refine the question so that they get more detailed answers.
- **Ecology should consider the end use of the product in the cost-benefit analysis.** One member said that Ecology needs to consider how a product will be used, customer acceptance of the product, and whether or not the product will have a shorter turn around time.
- **Benefits of alternatives should be captured in the cost-benefit analysis.** One member said that if Ecology and Health are going to reshape the survey questions, they should be designed to capture any benefits that may be realized from using alternatives.
- **Disagreement regarding a State law requiring flame retardant standards.** Some members disagreed whether Washington State has a law requiring products to meet a specific flame retardant standard. One member cited Washington Administrative Code (WAC) for the law, while other members disagreed with the interpretation of the WAC. Ecology will explore this issue further.
- **Does the survey data depend completely on voluntary information?** One member asked how much data comes to Health voluntarily and questioned why companies would volunteer information to Health regarding the chemicals that they were using. Health explained that they can only get information from companies that voluntarily offer and that there may be a positive marketing aspect for some companies to tell Health about the products that they are using.
- **How will health deal with chemicals for which less information is known?** One committee member was concerned that Health would reward companies or products for lack of data on a chemical. Health said that there will be data gaps on toxicity information for different chemicals and that they do not consider one alternative to be better than another simply because less is known about the specific

alternative. Health stated that they may be able to fill in some of the probable data gaps using a modeling approach called structure activity analysis.

- **Health should include Deca in their assessment template.** One member requested that Health include Deca in the spreadsheet of compiled information on alternatives. She said that it would be useful to compare Deca to the alternatives in the spreadsheet. Health indicated that they did plan to do this.
- **Is Health's assessment public information?** One member was concerned that Health's alternatives assessment was not public information and that their review of alternatives was not peer-reviewed. He said that the assessment was not an open process. Health explained that all of the information is public and that they have referenced all of the data included in their alternatives assessment. Health also said that their assessment will be peer-reviewed by experts, the advisory committee, and will also be open for comment during the public comment period.
- **Is there a peer-review process for the toxicology assessment?** Health said that the peer-review for the toxicity assessment needs to be determined.

One committee member asked Randy Ray to clarify the organization that he was representing at the committee meeting. Randy confirmed that he was representing the Pacific Seafood Processors Association, not the American Chlorine Council.

## Cost-Benefit Analysis

Cathy Carruthers and Anh Berry presented Ecology's approach and initial findings of Ecology's cost-benefit analysis on a Deca ban (Attachment 3\*, slides 33-53). Cathy said that the purpose of the analysis was to determine if a Deca ban makes sense, to review health and environmental benefits of a Deca ban, to determine the costs to businesses that result from a ban, and to identify uncertainty and data gaps. Cathy said that Ecology has not talked with many companies regarding costs yet, however, based on limited conversations, it appears that the materials used to replace Deca are more expensive.

Cathy urged committee members to contact her if they have comments or suggestions regarding the business survey that Denise Laflamme discussed or if they have any comments on the cost-benefit analysis. Cathy's email is caca461@ecy.wa.gov.

Anh Berry explained Ecology and Health's reasoning and approach for using PCBs as a proxy for PBDEs given the lack of available PBDE data. Anh reviewed the history of scientific understanding of PCBs and the parallels between PCBs and PBDEs. She said that Ecology has compared several studies of PCBs and PBDEs to examine the similarities in health effects; she referenced a poster (displayed on the wall) that Ecology created to show the study comparisons and results. The justification for the use of PCBs as a proxy in the cost-benefit analysis will be peer-reviewed by experts at the Department of Health, California, EPA, CDC, EU, and Maine.

Advisory committee members had the following comments and questions on the cost-benefit analysis:

- **Isn't the purpose of the cost-benefit analysis to evaluate the Deca alternatives, not to determine whether or not there should be a ban on Deca?** Ecology explained that the cost-benefit analysis and alternatives assessment are tools that Ecology and Health are using to determine whether Deca should be banned. Some members disagreed and said that the Interim Plan stated that Deca should be banned and questioned why Ecology was re-evaluating the ban.

- **If the costs outweigh the benefits, will Ecology ban Deca?** One member asked if Ecology has a number they are planning on using to determine whether or not Deca will be banned. Ecology explained that there is not “magic number” and that the cost-benefit analysis is just one tool to help Ecology and Health make decisions to complete the PBDE CAP.
- **Who will be reviewing Ecology’s cost-benefit analysis?** Ecology explained that they have identified experts at organizations, but are still working on finding peer-reviewers. Ecology said that if committee members would like to recommend reviewers, they can send the recommendations to Ecology to consider.
- **Ecology should expand the scope of the cost-benefit analysis.** One member said that Ecology should consider the risks and costs associated with employees losing their jobs due to a Deca ban. Another member pointed out that the scope of the analysis should be expanded to include the costs associated with loss of IQ in a population, neurodevelopmental disorders, development disorders, and disease.
- **Is end-of-life considered in the cost-benefit analysis?** Ecology explained that they are uncertain if they will be able to consider end-of-life in the analysis and that it largely depends on information and feedback that Ecology receives from businesses. If EOL issues do not figure in the considerations of businesses that are making supply decisions, then it will not be part of the cost benefit analysis.
- **IQ is a very subjective value and may not be appropriate for the cost-benefit analysis.** One member was concerned that IQ is a subjective value and that there is a high variance in IQ values, even for the same individual. The committee member was concerned that the subjective nature and high variance of IQ undercuts the process of the cost-benefit analysis. Ecology explained that the IQ value they are using in the analysis is a statistical and average value for the population, not an IQ for a single individual. The committee member was also concerned that Ecology’s assumptions are getting so large that they will end up with meaningless data. Ecology explained how their model deals with large assumptions in order to result in statistical and meaningful conclusions.
- **Can Ecology take into account the costs of delaying action?** One member asked if Ecology could take into consideration the costs of taking action on Deca in 20 years, instead of taking action now. Ecology said it was possible and that they would need to produce a baseline for Deca and then look at the baseline shift that will occur in the future.
- **How will Ecology deal with clean-up costs in the analysis?** Ecology is not certain how they will approach clean-up costs and will continue to discuss this issue.
- **Health should not use animal studies to determine the health effects on humans.** One committee member said that Health is presuming that there are adverse health effects to humans caused by Deca. He said that there are no human studies that prove adverse health effects on humans. One committee member pointed out that it is better to utilize animal data than to presume that the chemicals are safe until proven otherwise.
- **Ecology should consider completing the other requirements of WAC 34.05.328 (Small Business Economic Impact Statement and Least Burdensome Alternative Analysis) as part of the alternatives analysis.**
- **Ecology should look at more companies than just those who are manufacturing products containing Deca.** One committee member said that there are many businesses selling products that contain Deca, not manufacturing them. He said that there are a lot of businesses that will be affected by a Deca ban and that Ecology should also consider these businesses. Ecology explained that they have interviewed non-manufacturing businesses and that the businesses do not know if their products contain Deca. Ecology said that they understand that retailers and distributors are also important to consider.

- **Disagreement regarding the breakdown of Deca.** One committee member said that Health is presuming that Deca breaks down and he said that there is much more Deca that is background than what is being broken down into Penta and Octa. Health explained that they are modeling the information using a distribution of values to ensure that the impact from Deca is not over or underestimated. Health recognizes that they are making assumptions and that there is uncertainty that is inherently involved in the process. Another committee member pointed out that the studies that Health is referencing were not conducted in realistic conditions and that Deca breakdown has not been measured from consumer products.
- **Health should not compare PCBs to PBDEs.** One member said that he is opposed to the use of PCB studies as a proxy for PBDE and that comparing PBDEs to PCBs is an extreme stretch.
- **Has California decided to re-review a ban on Deca?** One committee member asked if Ecology knew whether or not California was taking another look at their decision not to ban Deca. The committee member urged Ecology to consider whether Washington State should be the first state to recommend a Deca ban and said that Ecology should proceed with caution. He also suggested that Ecology should check on the EU process as well.
- **How will Ecology deal with consumer elasticity?** Ecology said they cannot answer this question yet. They said that most companies are facing declining prices and are taking the slightly more expensive component and are building it in without losing their profitability. Ecology said that the costs of alternatives will be paid by the individual companies, rather than the consumer. Dale Swanson, representing Panasonic Shikoku, agrees that companies will not increase the price of their products; rather they will absorb the costs.
- **What is Ecology's backup plan if they do not have sufficient information due to concerns regarding confidential business information?** Ecology reiterated that they are very careful with confidential information. Ecology also explained that the law states that Ecology can use quantitative and qualitative data to determine whether the probable benefits outweigh the probable costs. Ecology said they are working on getting as much information as they can.

## Wrap Up & Next Steps

Carol Kraege reminded the committee that their input is essential to Ecology's and Health's success in completing the PBDE CAP (Attachment 3\*, slides 54-56). If committee members would like to share comments, questions, or other information with Ecology, they can contact Mike Gallagher. Committee members should submit comments to Ecology by **August 10<sup>th</sup>**.

Carol said that Ecology's plan is to take comments from today's meeting and develop a work plan to come up with policy options for the CAP. Ecology is concerned about the short timeframe and would like the final CAP to be completed by the end of the year. The purpose of the next advisory committee meeting is to discuss the Deca-alternative options that Ecology is currently working to create. The meeting will likely occur in September or October.

Carol explained that the Deca end-of-life issues are now a separate process and will be considered as part of an advisory group separate from this Deca-alternatives committee. She said that the advisory committee meetings for the Deca end-of-life process will start in the fall and that Ecology should have recommendations by June 2006.

Advisory committee comments and questions on the next steps:

- **The public comment period should be 30 days; 10 days is not appropriate.**
- **What is the driving force for the frantic hurry to complete the CAP by December 2005?** One committee member said that focusing on a quality product is more important than trying to produce a product in such a short period of time. Ecology said that they have discussed the issue of time, but that Ecology needs to take a hard look at the information they have at hand and make a decision this fall. Ecology reiterated that they already delayed the CAP process once and that they received funding to develop another CAP that they would like to start working on. Ecology will consider the comment by the committee member and will see where they are in the fall.
- **Concern about the quick deadline to provide Ecology with information.** One member was concerned that he would not be able to provide Ecology with additional information by August 10<sup>th</sup>. Ecology said they would like to receive materials from committee members no later than August because of the short timeframe.

## Meeting Feedback

Advisory committee members provided the following feedback on the committee meeting:

- Committee meetings should end by 4:00.
- It was difficult to hear in the room due to street noise. Ecology should change the venue or consider using microphones at the next meeting.
- Parking is much easier than at previous meeting locations.

\*Attachments can be found on Ecology's website or obtained by email from Mike Gallagher (mgal461@ecy.wa.gov).

## Meeting Adjourned